

Pierce and Esteal (1986) recorded six species of ants that tended *G. lygdamus* in Colorado and Ballmer and Pratt (1991) listed three species in California. We found eight species in Missouri: *Prenolepis imparis* (Say), *Camponotus pennsylvanicus* (De Geer), *Camponotus americanus* Mayr, *Formica schaufussi dolosa* Wheeler, *Tapinoma sessile* (Say), *Monomorium minimum* (Buckley), *Crematogaster punctulata* Emery, and *Leptothorax pergandei* Emery. Of these ants, only *T. sessile* had been previously reported as tending *G. lygdamus*.

We had hypothesized that the smaller species of ants were tending earlier instars, so we grouped ant species into three size categories: large (7.0–9.0 mm; *C. americanus*, *C. pennsylvanicus*, *F. s. dolosa*), small (2.5–4.0 mm; *C. punctulata*, *P. imparis*, *T. sessile*, *L. pergandei*), and minute (<2.0 mm; *M. minimum*). Large ants tended second, third, and fourth instars; small ants tended second and third instars, and minute ants tended first instars. However, larval samples may have been unrepresentative because first and second instars usually burrow into the inflorescence and do not often come in contact with ant tenders (Pierce & Eastal 1986). It also seemed that the number of ant tenders per larva increased as ant size decreased, which would be consistent with Wagner's (1993) observations on *Hemiargus isola* (Reakirt). Most larvae we found were feeding on open flowers or buds, with very few on stems or leaves. No statistical testing was attempted due to the small sample sizes.

We thank Leon Higley and Tom Hunt for reviewing an earlier draft of this manuscript, and Gregory Ballmer, Richard Heitzman, and an anonymous reviewer for reviewing the submitted draft. We are grateful to Mark Dubois for ant identifications. Voucher ants have been deposited in the University of Nebraska State Museum and/or in Mark Dubois' personal collection. This is paper number 12085 of the journal series of the Nebraska Agricultural Research Division and contribution number 970 of the Department of Entomology, University of Nebraska.

LITERATURE CITED

- BALLMER, G. R. & G. F. PRATT. 1991. Quantification of ant attendance (myrmecophily) of lycaenid larvae. *J. Res. Lepid.* 30:95–112.
- PIERCE, N. E. & S. EASTAL. 1986. The selective advantage of attendant ants for the larvae of a lycaenid butterfly, *Glaucopsyche lygdamus*. *J. Animal Ecol.* 55:451–462.
- PIERCE, N. E. & P. S. MEAD. 1981. Parasitoids as selective agents in the symbiosis between lycaenid butterfly larvae and ants. *Science* 211:1185–1187.
- WAGNER, D. 1993. Species-specific effects of tending ants on the development of lycaenid butterfly larvae. *Oecologia* 96:276–281.

S. M. SPOMER AND W. W. HOBACK, *Department of Entomology, University of Nebraska, Lincoln, Nebraska 68583, USA.*

Received for publication 26 November 1997; revised and accepted 2 March 1998.

Journal of the Lepidopterists' Society
52(2), 1998, 217–219

ON THE TRUE TYPE LOCALITIES OF *MESOTAENIA VANINKA DELAFUENTEI* NEILD AND *MEMPHIS VILORIAE* PYRCZ & NEILD (NYMPHALIDAE)

Additional key words: butterflies, holotypes, Lepidoptera, Pantepui, Venezuela.

In his recent book on the butterflies of Venezuela, A. Neild (1996) described the new subspecies *Mesotaenia vaninka delafuentei*, apparently based on a color picture made by J. Wojtusiak of the unique female specimen at the Museo del Instituto de Zoología Agrícola, Maracay, Venezuela (MIZA). Neild provided the following in the text: "an extraordi-



FIG. 1. Map of Venezuela showing true type locality (1) of *Mesotaenia vaninka delafuentei* Neild and *Memphis viloriae* Pyrcz and Neild, and the erroneous type locality (2) given in Neild's (1996) book. (1) = Cerro Yutajé, Amazonas state; (2) = Auyán Tepui, Bolívar state.

nary new Venezuelan subspecies . . . also exists on the Auyán Tepui (the source of the Angel Falls), in south-eastern Bolívar state (p. 58) . . . *delafuentei* Neild ssp. n. Auyán Tepui (south-eastern Bolívar state) (p. 59) . . . It was collected on the Auyán Tepui (the source of the Angel Falls), in south-eastern Bolívar state. . . Type locality Auyán Tepui, south-eastern Bolívar state, in eastern Venezuela." In the Appendices he provided: "Auyán Tepui, Bolívar, Venezuela (full data not recorded) [!]" (MIZA) (p. 129) . . . Auyán Tepui, Bolívar, Venezuela, Expedición MIZA (MIZA)" (p. 132). However, the actual data on the label attached to the holotype are: "VENEZ. Amazonas Cerro Yutajé, 1750 m 5°45'N–66°8'W 17-24-II-1995 J. L. García Exp. Terramar." This locality is situated about 380 km to the West of the Auyán Tepui (Fig. 1). We note that this subspecies is dedicated by Neild to Mrs. Alma Torres de la Fuente, and hence the name should be spelled *Mesotaenia vaninka delafuentae*.

Regarding *Memphis viloriae*, Pyrcz and Neild (p. 114 in Neild 1996) state: "Range . . . presently known only from Venezuela on the Auyán Tepui in eastern Bolívar state . . . Type locality The Auyán Tepui, eastern Bolívar state, in south-eastern Venezuela . . . collected recently at 1700 m elevation, on the slopes of the Auyán Tepui ." In the appendices they state: "Auyán Tepui, Bolívar, Venezuela, 1700 m. Expedición MIZA. Col. J. A. Clavijo (MIZA) (p. 130) . . . Holotype: Auyán Tepui, Bolívar. Coll. J. A. Clavijo (MIZA)" (p. 135). However, the actual data on the two labels attached to the male state: "VENEZ. Amazonas

Cerro Yutajé, 1750 m 5°45'N–66°8'W 12-17-II-1995", and "Col. J. Clavijo A. Exp. Terramar." (see also Fig. 1). This species was dedicated by Pyrcz and Neild to Angel Vilorio and therefore the spelling of the name should be *Memphis viloriai*.

Pantepui is a biogeographic area of high endemism, but even within that area almost every mountain has its own endemic taxa. It is therefore crucial that published locality labels be as exact as possible, especially in original descriptions.

LITERATURE CITED

NEILD, A. F. E. 1996. The butterflies of Venezuela, Part 1: Nymphalidae I (Limenitidinae, Apaturinae, Charaxinae). A comprehensive guide to the identification of adult Nymphalidae, Papilionidae, and Pieridae. Meridian Publ., London, United Kingdom. 144 pp.

JURG DE MARMELS AND JOSE CLAVIJO, Museo del Instituto de Zoología Agrícola "Francisco Fernández Yépez" (MIZA), Facultad de Agronomía, Universidad Central de Venezuela, Apartado 4579, Maracay 2101-A, Venezuela.

Received for publication 15 December 1997; revised and accepted 8 February 1998.